

Amendment Under 37 C.F.R. § 1.111
U.S. Application No. 10/655,164

REMARKS

Claims 1 and 6 are amended and claims 1-8 are all the claims pending in the application. To summarize the Office Action, the Examiner rejected claims 1, 3-6 and 8 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Chaille (EP 1,209,035). Claims 2 and 7 were objected to for depending on a rejected base claim but were indicated as containing allowable subject matter. The outstanding rejections are addressed in the following:

Claim Rejections - 35 U.S.C. § 103(a)

Claims 1, 3-6 and 8 stand rejected under 35 U.S.C. § 103(a) based on Chaille (EP 1,209,035). This rejection is traversed.

Independent claims 1, 5 and 6 are directed toward a predicting method, predicting device and predicting program for designing routes of a wire harness by predicting a range of the arrangement displacement. The predicted range of displacement is based on a computation of values for a length of the basic route between fixing points including a dimensional tolerance, fixing positions and fixing directions of the wire harness at the fixing points, and a minimum bending radius of the wire harness. The predicted displacement range of the wire harness is then displayed in three dimensions. This prediction provides for precise designing of wire harness routes in applications such as vehicle design and the like. (Specification at page 2, line 13 - page 3, line 5).

Applicant submits that embodiments of claims 1, 5 and 6 are neither taught nor suggested by Chaille. For instance, Chaille teaches a method for allocating space required by a moving

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wire harness in a vehicle by measuring a dimension of the wire harness and subsequently calculating the area and volume required by the wire harness as it moves in the vehicle. (Chaille at column 1, lines 44-52). More specifically, Chaille teaches calculating an area associated with a moving wire harness from two distance measurements (i.e., distances K1 and K2) associated with the wire loop and its movement. (Chaille at column 3, lines 23-38 and Figure 2). Further, Chaille teaches a volume determination using the area calculation and a measurement (i.e., dimension d) for the length of the wire loop extending over the first and second mounting surfaces. (Chaille at page 3, lines 39-44 and Figure 3). Stated differently, Chaille teaches a simple area and volume determination based on three length measurements.

In contrast, the embodiments of claims 1, 5 and 6 compute a predicted displacement range from values not considered by the method of Chaille. For instance, the computation disclosed by Applicant utilizes separate parameter values for a basic route length, a dimensional tolerance, fixing positions and fixing directions and a minimum bending radius. A basic route length is a length of a route between two fixing members. A dimensional tolerance value considers a maximum value of tolerance values that the basic route length normally has. Further, values for the fixing position and fixing direction depend on a fixing orientation of the wire harness to the fixing members. Also, the minimum bending radius represents the physical limit of bending of the wire harness. Each of these values are utilized for computation of the predicted displacement range. (Specification at page 10, line 23 - page 11, line 10).

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In rejecting claims 1, 5 and 6, the Examiner does not identify how the separate parameter values for the basic route length, dimensional tolerance, fixing positions and fixing directions are taught by Chaille. With respect, Applicant submits that the claimed computation is neither taught nor suggested by Chaille because Chaille merely teaches area and volume determination from three length measurements.

Further, Applicant disagrees with the Examiner's allegation that using values for the minimum bending radius would be obvious. There is no reason to incorporate a value for bending radius to the teachings of Chaille because the bending radius of Chaille's wiring harness is predetermined by the mounting of the wire harness to the movable surfaces. Further, Applicant submits that the Examiner's stated motivation is based on impermissible hindsight reasoning.

Therefore, Applicant submits that the rejection of claims 1, 5 and 6 is improper, at least for the above stated reasons. Accordingly, Applicant requests the rejections be withdrawn. Further, since claims 3-4 depend from claim 1 and claim 8 depends from claim 6, Applicant submits these claims are allowable at least by virtue of their respective dependency on claims 1 and 6 and requests these rejections be withdrawn as well.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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